

## Appendix

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**Table A-1. Stratification, sample, and survey responses of doctoral scientists and engineers:  
1993 Survey of Doctorate Recipients**

Item	Sampling frame	Survey sample	Complete response	Ineligible response(1)	Non-response	Response rate(2)	Weighted response rate(3)
						( In Percent)	
Total.....	558,726	49,228	39,495	3,344	6,389	87.0	87.0
Field of doctorate							
Chemistry.....	64,352	4,284	3,492	245	547	87.2	87.7
Physics/astronomy.....	40,935	3,311	2,629	248	434	86.9	86.5
Earth/ocean/atmospheric sciences.....	16,781	1,457	1,201	121	135	90.7	90.4
Mathematical sciences.....	26,494	2,257	1,778	168	311	86.2	85.9
Computer and information sciences.....	7,347	781	645	53	83	89.4	89.8
Agricultural sciences.....	27,262	2,310	1,815	226	269	88.4	88.3
Medical sciences.....	15,828	2,524	2,099	127	298	88.2	88.4
NIH biological sciences.....	62,270	9,012	7,496	466	1,050	88.3	88.3
Other biological sciences.....	47,392	3,534	2,929	230	375	89.4	89.9
Psychology.....	80,610	5,792	4,745	231	816	85.9	85.8
Economics.....	22,372	1,389	1,021	143	225	83.8	84.7
Anthropology/archeology/sociology.....	23,890	1,862	1,473	167	222	88.1	89.4
Other social sciences.....	34,041	2,132	1,612	189	331	84.5	84.7
Electrical/electronics engineering.....	20,714	2,100	1,596	150	354	83.1	82.9
Other engineering.....	68,437	6,483	4,964	580	939	85.5	85.4
Demographic characteristics							
U.S. born disabled.....	14,378	1,559	1,350	105	104	93.3	93.9
White.....	414,154	32,209	27,013	1,396	3,800	88.2	88.2
Black.....	6,987	1,522	1,240	43	239	84.3	82.1
Asian.....	6,175	1,368	1,091	111	166	87.9	87.6
Hispanic.....	5,052	1,287	1,098	54	135	89.5	89.4
Native American.....	813	254	214	8	32	87.4	84.5
Foreign Born:							
U.S. Citizen.....	38,394	4,151	3,345	261	545	86.9	87.2
Foreign Citizen.....	72,774	6,878	4,144	1,366	1,368	80.1	79.0
Sex:							
Male.....	450,126	37,160	29,453	2,739	4,968	86.6	86.6
Female.....	108,600	12,068	10,042	605	1,421	88.2	88.6
Year of Doctorate:							
1964 or Earlier.....	73,037	6,007	4,625	533	849	85.9	85.8
1965 to 1974.....	154,420	11,253	8,925	699	1,629	85.5	85.7
1975 to 1984.....	170,655	14,496	11,699	837	1,960	86.5	86.6
1985 to 1992.....	160,614	17,472	14,246	1,275	1,951	88.8	89.2

(1)The 3,344 ineligible responses include the following: doctorates living outside the U.S. during the week of April 15, 1993 (2,849); deceased (447); those who were institutionalized during the week of April 15, 1993 (33); those over the age of 75 in April 1993 (15).

(2) The unweighted response rate is calculated as the total responses divided by the total sample.

(3) The weighted response rate is the total responses multiplied by their sample weights divided by the total sample multiplied by their sample weights.

**SOURCE:** National Science Foundation/SRS, 1993 Survey of Doctorate Recipients

**Table A-2. Classification of occupation categories:  
1993 Survey of Doctorate Recipients**

Total.....	010-500
Computer and mathematical scientists.....	052-054, 088, 172-176, 276,286
Computer and information scientists.....	052-054, 088
Mathematical scientists.....	172-176
Postsecondary teachers- Computer and mathematical sciences.....	276,286
Life and related scientists.....	021-025,027,271,273,287,297
Agricultural and food scientists.....	021
Biological scientists.....	22,23,25,27
Forestry and conservation scientists.....	024
Postsecondary teachers- Life and related sciences.....	271,273,287,297
Physical and related scientists.....	191-196,198,275,277,289
Chemists, except biochemists.....	192-195
Physicists and astronomers.....	191,196
Other physical scientists.....	198
Postsecondary teachers- Physical and related sciences.....	275,277,289
Social and related scientists.....	231-233,235-237,278,290,291,293,298
Economists.....	232
Political scientists.....	235
Psychologists.....	236
Sociologists and anthropologists.....	231,237
S&T historians and other social scientists.....	233
Postsecondary teachers- social and related sciences.....	278,290,291,293,298
Engineers.....	082-099
Aerospace and related engineers.....	082
Chemical engineers.....	085
Civil engineers and architectural engineers.....	086
Electrical and related engineers.....	087,089
Industrial engineers.....	091
Mechanical engineers.....	094
Other engineers.....	083,084,090,092,093,095-099
Postsecondary teachers- Engineering.....	280
Managers, administrators, etc.....	141,151,152,153
Health and related occupations.....	111-114
Teachers, except S&E postsecondary teachers.....	251-257,272,274,279,281-285,288,292,294-296,299
Social services and related occupations.....	040,070,240
Technologists, etc.....	026,051,081,100-104,175,197
Sales and marketing occupations.....	200-203
Other non-S&E occupations.....	010,031-033,110,120,130,171,221-223,234,401-405,500

**SOURCE:** National Science Foundation/SRS, 1993 Survey of Doctorate Recipients

**Table A-3. Listing of a and b parameters for selected demographic groups in science and engineering fields, 1993**

Field of doctorate	Parameter	All	Female	White	Asian	Black	Native American	Hispanic	1991-1992 Cohort	Foreign
Total.....	a	-0.000026	-0.000087	-0.000031	0.000023	-0.000584	-0.001682	-0.000321	-0.000243	-0.000268
	b	13.4807	9.4488	14.7555	11.4803	11.3195	19.5898	12.8241	11.2384	13.6606
Sciences.....	a	-0.00003	-0.000092	-0.000035	0.000109	-0.000611	-0.002595	-0.000392	-0.00031	-0.000317
	b	13.1188	9.6216	14.2786	10.5833	10.7617	20.8412	12.7033	11.5723	12.7707
Computer and mathematical sciences...	a	-0.000436	-0.002083	-0.000539	-0.00055	0.026504	-0.002595 A	-0.014805	-0.003892	-0.003802
	b	14.7722	8.4849	15.5382	15.8133	3.3237	20.8412 A	17.5151	12.7888	16.3699
Computer and information sciences.....	a	-0.001287	-0.01072	-0.000928	-0.002154	0.026504 A	-0.002595 A	0.066164	-0.006365	-0.009285
	b	7.374	9.0365	5.2277	11.7876	3.3237 A	20.8412 A	-0.101	9.9844	15.5477
Mathematical sciences.....	a	-0.000592	-0.002761	-0.000711	-0.000249	0.031535	-0.002595 A	-0.019405	-0.008632	-0.005853
	b	16.572	8.8828	17.2924	17.8797	2.8952	20.8412 A	19.2617	15.6722	16.242
Life and related sciences.....	a	-0.000068	-0.00021	-0.00007	-0.000333	-0.001365	0.023396	-0.003245	-0.000733	-0.00106
	b	10.5008	7.7745	10.2479	8.356	6.7359	6.6407	10.9185	9.2327	10.843
Agricultural and food sciences.....	a	-0.000965	-0.008273	-0.000881	-0.00603	0.013928	0.023396 A	0.058986	-0.008643	-0.007744
	b	18.91	18.5587	16.9372	14.1452	11.0987	6.6407 A	3.2255	15.5029	11.3913
Biological and health sciences.....	a	-0.000082	-0.000224	-0.000096	-0.000139	-0.000888	0.033779	-0.003999	-0.000792	-0.001167
	b	9.7304	7.6826	10.2144	6.6417	5.1324	5.2923	10.284	8.6238	9.7587
Environmental sciences.....	a	-0.000825	0.06694	0.000183	-0.039187	-0.001365 A	0.023396 A	-0.003245 A	0.039506	-0.00106 A
	b	13.2739	8.5653	13.1489	8.3157	6.7359 A	6.6407 A	10.9185 A	4.1335	10.843 A
Physical and related sciences.....	a	-0.000105	-0.000733	-0.000116	0.000509	-0.002337	0.075976	0.044566	-0.001722	-0.001565
	b	11.9638	10.0464	11.9659	12.3645	11.3345	1.9313	-0.3042	15.4219	15.8263
Chemistry (except biochemistry).....	a	-0.000233	-0.001095	-0.000274	0.000399	0.002105	0.117198	0.060822	-0.004239	-0.003472
	b	14.1584	10.3317	14.4516	18.1527	9.587	1.4224	-0.4249	19.8669	18.1085
Geology and oceanography.....	a	-0.000117	-0.003137	0.000055	0.021301	-0.002337 A	0.075976 A	0.001711	-0.00184	-0.011668
	b	5.2042	8.7875	5.2005	10.0215	11.3345 A	1.9313 A	7.8006	7.6584	9.5855
Physics and astronomy.....	a	-0.00026	-0.002154	-0.000224	0.002	-0.036344	0.075976 A	0.021624	-0.004709	-0.004833
	b	9.7357	7.2907	7.7329	7.5757	13.5051	1.9313 A	12.7457	12.6795	18.4509
Other physical sciences (incl. earth)....	a	-0.010099	-0.024718	-0.013421	0.000509 A	-0.002337 A	0.075976 A	0.044566 A	-0.001722 A	-0.001565 A
	b	15.6683	11.8182	16.7874	12.3645 A	11.3345 A	1.9313 A	-0.3042 A	15.4219 A	15.8263 A

See explanatory information and SOURCE at end of table.

**Table A-3. Listing of a and b parameters for selected demographic groups in science and engineering fields, 1993**

Field of doctorate	Parameter	All	Female	White	Asian	Black	Native American	Hispanic	1991-1992 Cohort	Foreign
Social and related sciences.....	a	-0.000106	-0.000211	-0.000126	0.002951	-0.001747	-0.01034	0.00203	-0.000963	-0.00031
	b	17.1274	10.7942	19.8368	8.761	13.9896	28.448	8.0308	12.012	11.3849
Economics.....	a	0.000155	-0.00265	0.000256	-0.003223	0.007075	-0.01034 A	-0.012584	-0.008736	0.000008
	b	5.5617	9.1667	6.1031	13.0079	10.5077	28.448 A	17.3121	13.8932	14.2976
Political and related sciences.....	a	0.000203	-0.001252	-0.000219	0.021517	-0.013924	-0.01034 A	0.018067	0.017476	-0.019238
	b	21.6853	7.8887	24.3464	7.164	12.9067	28.448 A	9.4545	18.1652	17.4818
Psychology.....	a	-0.000248	-0.000398	-0.000305	-0.006483	-0.005128	-0.043994	0.006116	-0.001529	-0.007936
	b	19.4297	12.6593	23.1564	12.047	16.06	21.8878	9.085	10.295	12.6249
Sociology and anthropology.....	a	-0.000434	-0.000914	-0.000337	-0.000588	-0.004615	0.237751	0.008481	-0.010177	-0.009831
	b	10.8057	7.7608	10.8995	9.8625	7.3213	2.2494	5.1302	16.8065	10.0883
Other social sciences.....	a	-0.001757	-0.003642	-0.002411	0.033866	0.011698	-0.01034 A	-0.021878	0.007272	-0.002512
	b	34.2312	19.775	36.6809	5.5432	8.4963	28.448 A	15.6461	10.7535	12.6597
Engineering.....	a	-0.000168	-0.00114	-0.000247	-0.000131	-0.000369	0.053005	-0.003625	-0.001113	-0.001088
	b	15.4463	5.8969	17.9521	12.966	12.6337	5.8591	15.5614	10.1213	15.158
Aeronautical/astronautical.....	a	0.003337	-0.00114 A	0.006919	0.014224	-0.000369 A	0.053005 A	-0.003625 A	-0.045483	0.019269
	b	21.496	5.8969 A	15.8536	21.2146	12.6337 A	5.8591 A	15.5614 A	18.7643	28.8743
Chemical.....	a	-0.001168	0.009568	-0.001098	0.007662	-0.036776	0.053005 A	-0.054127	0.009251	-0.002974
	b	16.0952	6.5425	14.4934	10.4239	7.8726	5.8591 A	21.8558	12.649	5.8529
Civil.....	a	0.023625	0.100001	0.035403	0.011251	0.415796	0.053005 A	0.026623	-0.008256	0.008091
	b	6.6643	-1.5049	9.5672	7.8789	1.2209	5.8591 A	5.6919	11.674	18.9503
Electrical and computer.....	a	-0.000705	-0.004224	-0.001047	-0.001236	-0.033401	0.053005 A	0.027241	-0.003072	-0.002218
	b	15.9092	6.6965	16.0281	11.2709	17.5812	5.8591 A	12.7841	10.504	10.6947
Industrial.....	a	-0.005265	0.006136	-0.010131	0.029049	-0.000369 A	0.053005 A	-0.003625 A	0.040079	0.001834
	b	18.2552	9.3775	22.5415	11.7912	12.6337 A	5.8591 A	15.5614 A	13.3863	4.4499
Mechanical.....	a	-0.000772	-0.006733	-0.001164	-0.005297	0.151036	0.053005 A	0.064669	-0.001254	-0.003204
	b	12.9926	6.4313	14.2553	18.1881	1.8698	5.8591 A	5.443	10.7044	6.1314
Other.....	a	0.001212	-0.006641	0.001562	0.005771	0.023358	0.053005 A	-0.03277	-0.000695	-0.002171
	b	12.4211	10.6038	14.8129	11.631	8.6545	5.8591 A	14.2987	7.4486	21.8262

**KEY:** A = Direct estimates are not available; data shown are considered useful approximations.

**SOURCE:** National Science Foundation/SRS, 1993 Survey of Doctorate Recipients

**Table A-4. Approximate standard errors of estimated number of doctoral scientists and engineers by field of doctorate: 1993**

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Estimated number	Total	Sciences					Engineering				
		Total sciences	Computer & Math sciences	Life sciences	Physical sciences	Social sciences	Total engineering	Chemical	Civil	Electrical/computer	Mechanical
50	30	30	30	20	20	30	30	30	20	30	30
100	40	40	40	30	30	40	40	40	30	40	40
200	50	50	50	50	50	60	60	60	50	60	50
500	80	80	90	70	80	90	90	90	100	90	80
700	100	100	100	90	90	110	100	100	130	100	90
1,000	120	110	120	100	110	130	120	120	170	120	110
2,500	180	180	180	160	170	210	190	180	410	190	170
5,000	260	250	250	230	240	290	270	230	790	250	210
10,000	360	360	320	310	330	400	370	210	--	300	230
25,000	570	560	310	470	480	600	530	--	--	--	--
50,000	780	760	--	600	580	770	590	--	--	--	--
75,000	930	900	--	640	550	830	630	--	--	--	--
100,000	1,040	1,010	--	610	380	810	--	--	--	--	--
150,000	1,200	1,140	--	--	--	430	--	--	--	--	--
200,000	1,290	1,190	--	--	--	--	--	--	--	--	--
250,000	1,320	1,190	--	--	--	--	--	--	--	--	--
300,000	1,310	1,110	--	--	--	--	--	--	--	--	--
400,000	1,110	670	--	--	--	--	--	--	--	--	--
500,000	490	--	--	--	--	--	--	--	--	--	--

KEY: "--" = Not applicable

SOURCE: National Science Foundation/SRS, 1993 Survey of Doctorate Recipients

**Table A-5. Approximate standard errors of estimated number of women doctoral scientists and engineers by field of doctorate: 1993**

Page 1 of 1

Estimated number	Total	Sciences					Engineering				
		Total sciences	Computer & Math sciences	Life sciences	Physical sciences	Social sciences	Total engineering	Chemical	Civil	Electrical/computer	Mechanical
50	20	20	20	20	20	20	20	20	10	20	20
100	30	30	30	30	30	30	20	40	30	30	20
200	40	40	40	40	40	50	30	--	--	30	--
500	70	70	60	60	70	70	50	--	--	--	--
700	80	80	70	70	80	90	60	--	--	--	--
1,000	100	100	80	90	100	100	70	--	--	--	--
2,500	150	150	--	130	140	160	90	--	--	--	--
5,000	210	210	--	180	180	220	--	--	--	--	--
10,000	290	290	--	240	160	290	--	--	--	--	--
25,000	430	430	--	250	--	--	--	--	--	--	--
50,000	500	500	--	--	--	--	--	--	--	--	--
75,000	470	450	--	--	--	--	--	--	--	--	--
100,000	270	210	--	--	--	--	--	--	--	--	--

KEY: "--" = Not applicable

SOURCE: National Science Foundation/SRS, 1993 Survey of Doctorate Recipients

**Table A-6. Approximate standard errors of estimated number of black doctoral scientists and engineers by field of doctorate: 1993**

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Estimated number	Total	Sciences					Engineering				
		Total sciences	Computer & Math sciences	Life sciences	Physical sciences	Social sciences	Total engineering	Chemical	Civil	Electrical/computer	Mechanical
50	20	20	20	20	20	30	30	20	30	30	20
100	30	30	20	30	30	40	40	--	70	40	40
200	50	50	40	40	50	50	50	--	--	50	--
500	70	70	--	60	70	80	80	--	--	--	--
700	90	90	--	60	80	90	90	--	--	--	--
1,000	100	100	--	70	90	110	--	--	--	--	--
2,500	160	150	--	--	--	160	--	--	--	--	--
5,000	200	250	--	--	--	--	--	--	--	--	--
10,000	230	--	--	--	--	--	--	--	--	--	--

KEY: "--" = Not applicable

SOURCE: National Science Foundation/SRS, 1993 Survey of Doctorate Recipients

**Table A-7. Approximate standard errors of estimated number of Asian doctoral scientists and engineers by field of doctorate: 1993**

Page 1 of 1

Estimated number	Total	Sciences					Engineering				
		Total sciences	Computer & Math sciences	Life sciences	Physical sciences	Social sciences	Total engineering	Chemical	Civil	Electrical/computer	Mechanical
50	20	20	30	20	20	20	30	20	20	20	30
100	30	30	40	30	40	30	40	30	30	30	40
200	50	50	60	40	50	40	50	50	50	50	60
500	80	70	90	60	80	70	80	80	80	70	90
700	90	90	100	80	90	90	90	110	110	90	100
1,000	110	100	120	90	110	110	110	130	140	100	110
2,500	170	160	190	140	180	200	170	270	--	140	--
5,000	240	240	--	180	270	--	230	--	--	--	--
10,000	340	340	--	220	420	--	300	--	--	--	--
25,000	550	580	--	--	--	--	--	--	--	--	--
50,000	790	--	--	--	--	--	--	--	--	--	--

KEY: "--" = Not applicable

SOURCE: National Science Foundation/SRS, 1993 Survey of Doctorate Recipients

**Table A-8. Approximate standard errors of estimated number of Hispanic doctoral scientists and engineers by field of doctorate: 1993**

Page 1 of 1

Estimated number	Total	Sciences					Engineering				
		Total sciences	Computer & Math sciences	Life sciences	Physical sciences	Social sciences	Total engineering	Chemical	Civil	Electrical/computer	Mechanical
50	30	30	30	20	10	20	30	30	30	30	20
100	40	40	40	30	20	30	40	40	40	40	30
200	50	50	50	50	40	40	50	50	--	50	--
500	80	80	70	70	100	70	80	--	--	--	--
700	90	90	70	80	150	80	100	--	--	--	--
1,000	110	110	--	90	210	100	110	--	--	--	--
2,500	170	170	--	80	--	180	--	--	--	--	--
5,000	240	230	--	--	--	--	--	--	--	--	--
10,000	310	--	--	--	--	--	--	--	--	--	--

KEY: "--" = Not applicable

SOURCE: National Science Foundation/SRS, 1993 Survey of Doctorate Recipients

**Table A-9. Approximate standard errors for estimated percents of doctoral scientists and engineers: 1993**

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Base number of percent	Estimated percent						
	1 or 99	2 or 98	5 or 95	10 or 90	15 or 85	25 or 75	50
50	5.2	7.3	11.3	15.6	18.5	22.5	26.0
100	3.7	5.1	8.0	11.0	13.1	15.9	18.4
200	2.6	3.6	5.7	7.8	9.3	11.2	13.0
500	1.6	2.3	3.6	4.9	5.9	7.1	8.2
700	1.4	1.9	3.0	4.2	5.0	6.0	6.9
1,000	1.2	1.6	2.5	3.5	4.1	5.0	5.8
2,500	0.7	1.0	1.6	2.2	2.6	3.2	3.7
5,000	0.5	0.7	1.1	1.6	1.9	2.2	2.6
10,000	0.4	0.5	0.8	1.1	1.3	1.6	1.8
25,000	0.2	0.3	0.5	0.7	0.8	1.0	1.2
50,000	0.2	0.2	0.4	0.5	0.6	0.7	0.8
75,000	0.1	0.2	0.3	0.4	0.5	0.6	0.7
100,000	0.1	0.2	0.3	0.3	0.4	0.5	0.6
150,000	0.1	0.1	0.2	0.3	0.3	0.4	0.5
200,000	0.1	0.1	0.2	0.2	0.3	0.4	0.4
250,000	0.1	0.1	0.2	0.2	0.3	0.3	0.4
300,000	0.1	0.1	0.1	0.2	0.2	0.3	0.3
400,000	0.1	0.1	0.1	0.2	0.2	0.3	0.3
500,000	0.1	0.1	0.1	0.2	0.2	0.2	0.3

SOURCE: National Science Foundation/SRS, 1993 Survey of Doctorate Recipients

**Table A-10. Approximate standard errors for estimated percents of women scientists and engineers: 1993**

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Base number of percent	Estimated percent						
	1 or 99	2 or 98	5 or 95	10 or 90	15 or 85	25 or 75	50
50	4.3	6.1	9.5	13.0	15.5	18.8	21.7
100	3.1	4.3	6.7	9.2	11.0	13.3	15.4
200	2.2	3.0	4.7	6.5	7.8	9.4	10.9
500	1.4	1.9	3.0	4.1	4.9	6.0	6.9
700	1.2	1.6	2.5	3.5	4.1	5.0	5.8
1,000	1.0	1.4	2.1	2.9	3.5	4.2	4.9
2,500	0.6	0.9	1.3	1.8	2.2	2.7	3.1
5,000	0.4	0.6	0.9	1.3	1.6	1.9	2.2
10,000	0.3	0.4	0.7	0.9	1.1	1.3	1.5
25,000	0.2	0.3	0.4	0.6	0.7	0.8	1.0
50,000	0.1	0.2	0.3	0.4	0.5	0.6	0.7
75,000	0.1	0.2	0.2	0.3	0.4	0.5	0.6
100,000	0.1	0.1	0.2	0.3	0.3	0.4	0.5

SOURCE: National Science Foundation/SRS, 1993 Survey of Doctorate Recipients

**Table A-11. Approximate standard errors for estimated percents of black scientists and engineers: 1993**

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Base number of percent	Estimated percent						
	1 or 99	2 or 98	5 or 95	10 or 90	15 or 85	25 or 75	50
50	4.7	6.7	10.4	14.3	17.0	20.6	23.8
100	3.3	4.7	7.3	10.1	12.0	14.6	16.8
200	2.4	3.3	5.2	7.1	8.5	10.3	11.9
500	1.5	2.1	3.3	4.5	5.4	6.5	7.5
700	1.3	1.8	2.8	3.8	4.5	5.5	6.4
1,000	1.1	1.5	2.3	3.2	3.8	4.6	5.3
2,500	0.7	0.9	1.5	2.0	2.4	2.9	3.4
5,000	0.5	0.7	1.0	1.4	1.7	2.1	2.4
10,000	0.3	0.5	0.7	1.0	1.2	1.5	1.7

SOURCE: National Science Foundation/SRS, 1993 Survey of Doctorate Recipients

**Table A-12. Approximate standard errors for estimated percents of Asian scientists and engineers: 1993**

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Base number of percent	Estimated percent						
	1 or 99	2 or 98	5 or 95	10 or 90	15 or 85	25 or 75	50
50	4.8	6.7	10.4	14.4	17.1	20.7	24.0
100	3.4	4.7	7.4	10.2	12.1	14.7	16.9
200	2.4	3.4	5.2	7.2	8.6	10.4	12.0
500	1.5	2.1	3.3	4.5	5.4	6.6	7.6
700	1.3	1.8	2.8	3.8	4.6	5.5	6.4
1,000	1.1	1.5	2.3	3.2	3.8	4.6	5.4
2,500	0.7	0.9	1.5	2.0	2.4	2.9	3.4
5,000	0.5	0.7	1.0	1.4	1.7	2.1	2.4
10,000	0.3	0.5	0.7	1.0	1.2	1.5	1.7
25,000	0.2	0.3	0.5	0.6	0.8	0.9	1.1
50,000	0.2	0.2	0.3	0.5	0.5	0.7	0.8

SOURCE: National Science Foundation/SRS, 1993 Survey of Doctorate Recipients

**Table A-13. Approximate standard errors for estimated percents of Hispanic scientists and engineers: 1993**

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Base number of percent	Estimated percent						
	1 or 99	2 or 98	5 or 95	10 or 90	15 or 85	25 or 75	50
50	5.0	7.1	11.0	15.2	18.1	21.9	25.3
100	3.6	5.0	7.8	10.7	12.8	15.5	17.9
200	2.5	3.5	5.5	7.6	9.0	11.0	12.7
500	1.6	2.2	3.5	4.8	5.7	6.9	8.0
700	1.3	1.9	2.9	4.1	4.8	5.9	6.8
1,000	1.1	1.6	2.5	3.4	4.0	4.9	5.7
2,500	0.7	1.0	1.6	2.1	2.6	3.1	3.6
5,000	0.5	0.7	1.1	1.5	1.8	2.2	2.5
10,000	0.4	0.5	0.8	1.1	1.3	1.6	1.8

SOURCE: National Science Foundation/SRS, 1993 Survey of Doctorate Recipients